NDIA 30th Environmental and Energy Symposium

Capabilities Improvement

Toolkit

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Science Applications International Corporation
An Employee-Owned Company

Focus on Capabilities

- Improved Capabilities

>> Demand innovation, smart management

- Understanding process costs

>> Highlights Change Opportunities

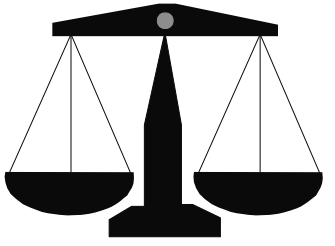
- Objective change assessment

>> Builds Consensus for action

Process Owners: In the driver's seat

Process Owners must balance the benefits of any initiative with its impact on the mission

Cost



Risk

The Process Owner

Toolkit Community

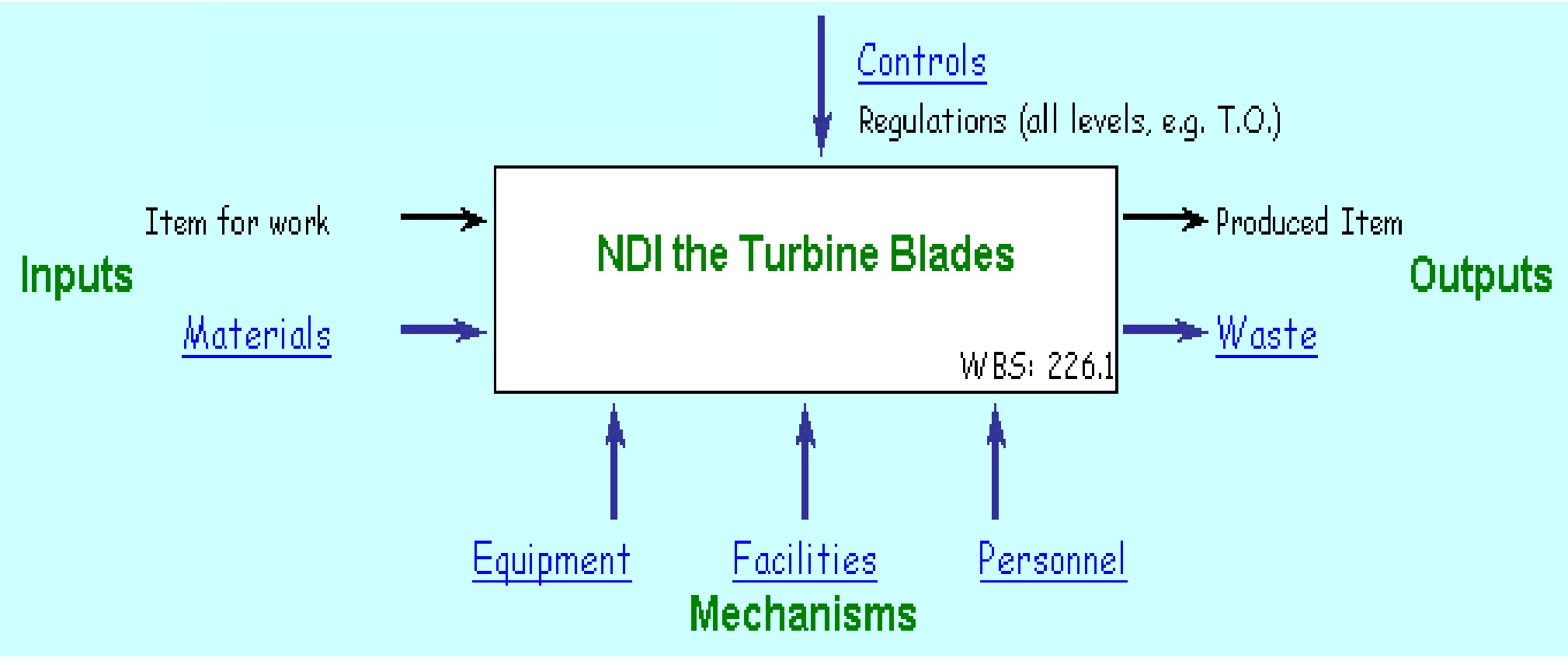
- Process Owners
  - Maintenance / Logistics shop supers
  - Shop workers (Idea program)
  - Civil Engineering
  - Hazmat management teams
- Process Stakeholders
  - Command HQs
  - Civil Engineering
  - Financial Management
  - Bio-Environmental Engineering
  - Systems Acquisition, Engineering, and Logistics
  - OEMs
  - Joint environmental research / P2 programs

Toolkit Capability

- Costs
  - Evaluate Process Costs
    - Slices by Activity (Process Step), Category (e.g. Labor), & Funding (e.g. Logistics)
    - Cost Subtotals: Annual, Direct, Indirect, ESOH
  - Investigate Alternatives:
    - Investment
    - Payback (months for savings to offset investment)
    - ROI (% savings to investment)
    - Net Present Value (ten year value of net savings in $FY03)
- Benefits
  - Hazard Reductions: materials, chemicals, & waste
  - Natural Resources: water & energy

Activity-Based Costing

with the Integration Definition Function (IDEF) Model



Toolkit Capability

- Web-enabled Database: **https://www.aetc.af.mil/lg/rtoc/**
  - Trial Server: **http://68.163.88.73/rtocv17/**

- Create a Process
  - Assign: **Cost Items to Activities (Process Steps)**
    - **Materials, Equipment, Facilities, Services, Utilities, Personnel, Waste**
  - Report: **Process Cost**
- Analyze up to 5 Alternatives
  - Modify: **Copy of Baseline Process**
  - Copy: **Processes from Library**
  - Report: **Analysis of Alternatives**
  - Chart: **Savings Cash Flow**
  - Chart: **Chemical Reductions**

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Reduction of Total Ownership Cost (v 1.7)

STEP 3: Modify/Evaluate Alternative processes

✔ Product

Location: Laughlin AFB
Shop: CORROSION CONTROL
Baseline WBS Code: 656

Process Group: Metals Treatment
Baseline Process: aluminum pretreatment
Product: primer-ready aircraft
50 end-items/year

RTOC Results
Savings/yr: $1,202.09 HazMats: -21000 lb/yr

Select a baseline Process:

656 - aluminum pretreatment Edit

Alternative Process

Select an alternative Process:

657 - Aluminum pretreatment with prekote

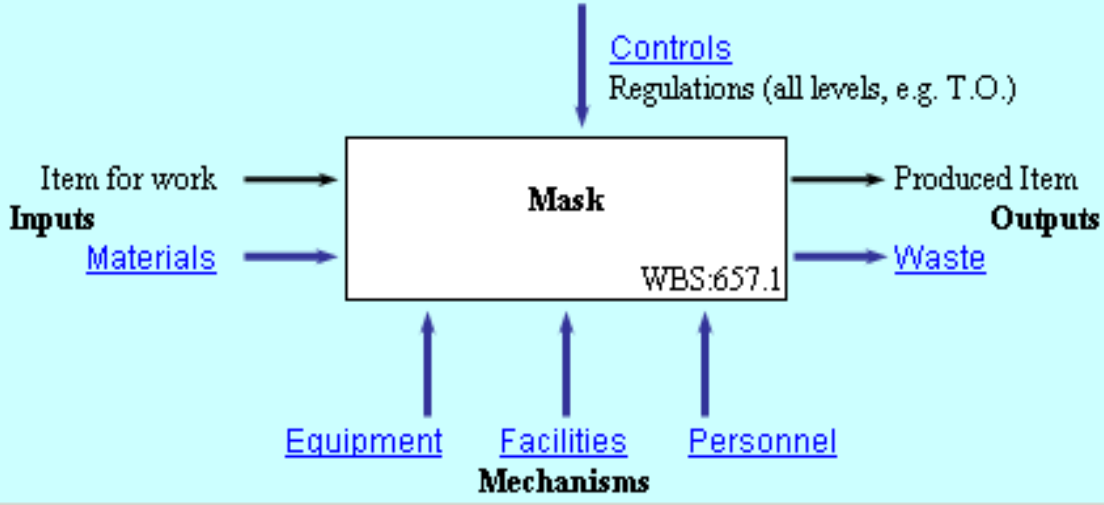
Edit

Select a sub-process:

Edit

Select an activity:

Mask



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Reduction of Total Ownership Cost (RTOC): Annual Savings and Benefits Report

DRAFT

Baseline Information

aluminum pretreatment: WBS code 656

Process Owner:	Custer, William
Date Updated:	Oct 7 2003 8:57AM
Process Group:	Metals Treatment
Base:	Laughlin AFB
Shop Name:	CORROSION CONTROL
Shop Building Number:	54/51/
Product:	primer-ready aircraft 50 end-items/year
Process Description:	aluminum pretreatment with alodine
Comments:	

Nonrecurring cost: $240.30 **Annual cost:** $2,381.59

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Reduction of Total Ownership Cost (v 1.7)

Alternatives Information

Alternatives:

#1

Process Name: Aluminum pretreatment with prekote

WBS: 657

Process Description: aluminum pretreatment with prekote

MSDS evaluated by SG: No

Waste evaluated by CE: No

Nonrecurring cost: $120.15 **Annual cost:** $1,179.50

Justification Memo:

T.O. Approval Status:
All activities approved

Labor Hours: 5

Energy (kwh/yr): 0

Water (gal/yr): 0

Wastewater (gal/yr): 0

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Reduction of Total Ownership Cost (v 1.7)

Labor Hours:	5
Energy (kwh/yr):	0
Water (gal/yr):	0
Wastewater (gal/yr):	0
Hazardous Materials (lbs/yr):	320
Hazardous Waste (lbs/yr):	0
Solid Waste (lbs/yr):	0
Air Emissions (lbs/yr):	0
TRI Chemicals (lbs/yr):	0
HAP Chemicals (lbs/yr):	0
VOC Chemicals (lbs/yr):	54.91

Baseline vs. Alternatives Comparison

Process Name	WBS Code	Initial Investment	Net Present Value	Payback Period	Annual Changes			
					Cost	Labor Hours	HazMat Pounds	Haz Waste Pounds
Aluminum pretreatment with prekote	657	$120.15	$9,230.78	0.100	$1,202.09	-5	-21000	0

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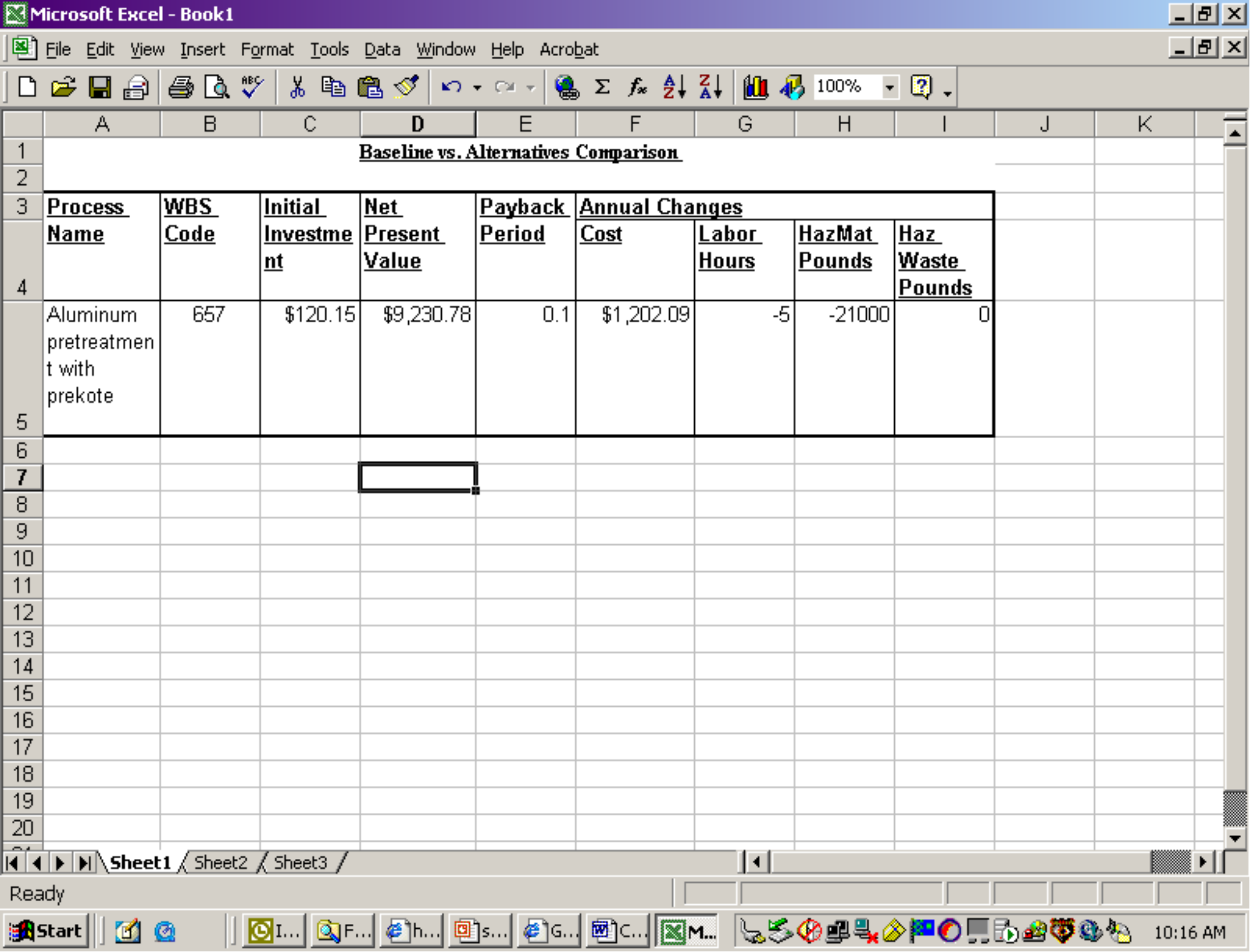
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Baseline vs. Alternatives Comparison
Process Name
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Initial Investment
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Cost
Labor Hours
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Haz Waste Pounds
Aluminum pretreatment with prekote
657
$120.15
$9,230.78
0.1
$1,202.09
-5
-21000
0
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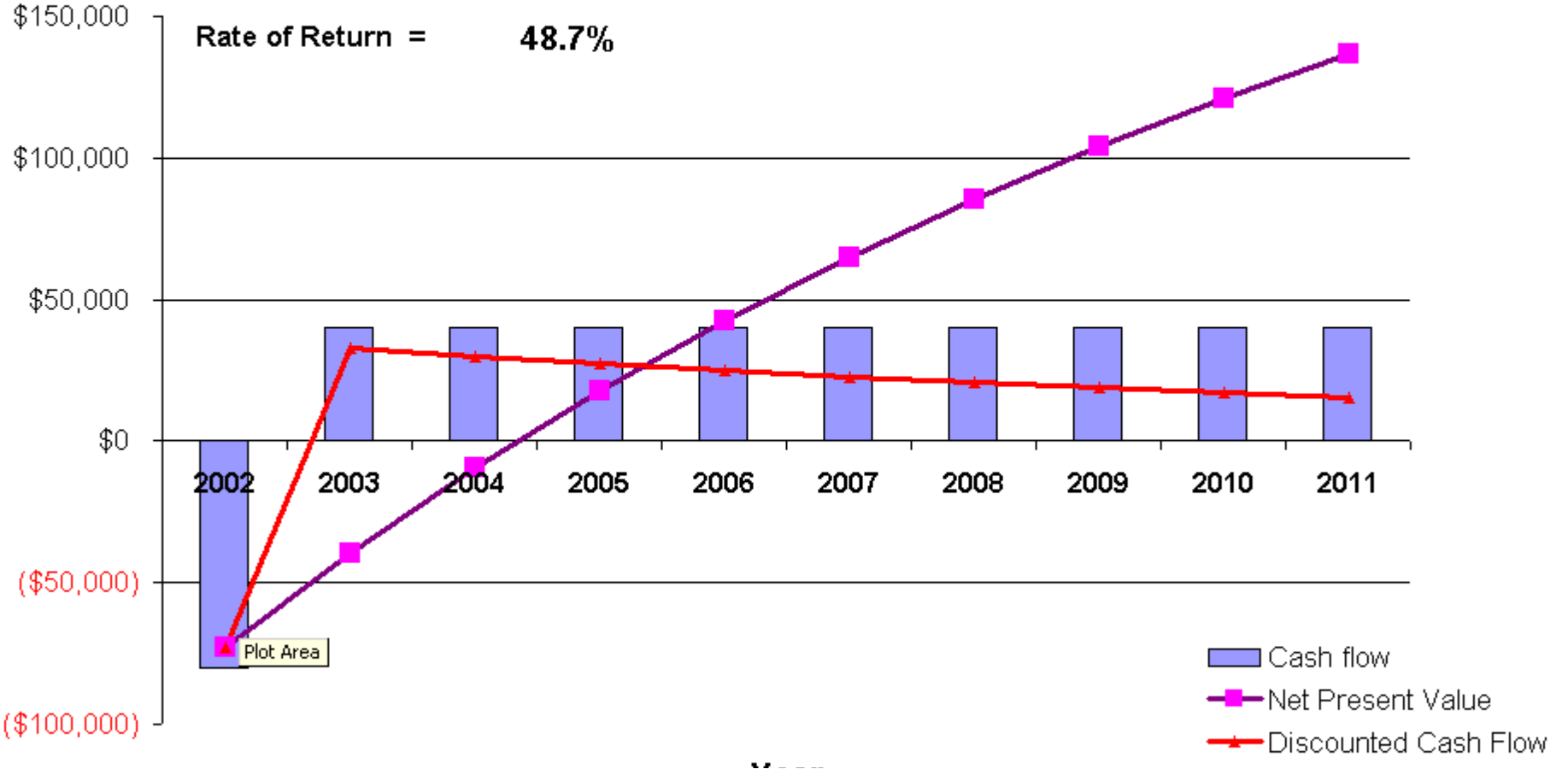
NPV Example

- Investment: $80,000
- Annual Savings (minus any outyear investments too): $40,000
- Discount Rate: 10% (for demo purposes)
  - OMB publishes updates each Jan and June
- Assumed Equipment Life: 10 years (FM policy)
- Net Present Value: $136,692



Questions?

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